

REMARKS

The Examiner's Office Action dated on June 2, 2006 has been received and its contents carefully considered.

This Amendment has amended claims 1, 6, 7, 9, 10, 12, 15, 21, 22, 24, 25, 27 and 30, and cancelled claims 5, 8, 20 and 23 without prejudice. Claims 1, 2, 4, 6, 7, 9-17, 19, 21, 22 and 24-34 are currently pending and under consideration, wherein claims 1, 15, and 30 are the independent claims. For at least the following reasons, it is submitted that this application is in condition for allowance.

Claims 1, 2, 4-17 and 19-29 were rejected under 35 U.S.C. 103(a) as being obvious over the combination of *Nishihara* (U.S. 6,014,126) with *Ham* (U.S. 2002/0196224 A1). This rejection is respectfully traversed.

Claim 1 has been further amended to include the features of originally filed claims 5 and 8, and recites "wherein the output frames further include an overdrive compensation output frame, which is output from the frame processing apparatus after the overdrive output frame, and the overdrive compensation output frame includes an output pixel datum which is smaller than the second pixel datum".

Similarly, claim 15 has also been further amended to include the features of originally filed claims 20 and 23, and recites "wherein the output frames further include an overdrive compensation output frame, which is output from the frame processing apparatus after the overdrive output frame, and the overdrive

compensation output frame includes an output pixel datum which is smaller than the second pixel datum”.

The Office Action alleges, with respect to originally filed claims 8, 9, 12, 23, 24 and 27, that ¶ [0014] and Table 1 of *Ham* disclose the claimed “overdrive compensation output frame”. In fact, ¶ [0015] of *Ham* reads as follows:

[0015] Further, from Table 1 and equations (2) and (3), the conventional high-speed driving method applies the input data voltage to the liquid crystal cell without a data modulation when the data voltage VD_n inputted at the current frame F_n is equal to the data voltage VD_{n-1} of the previous frame F_{n-1} . On the other hand, the input data voltage is modulated to be greater when the data voltage VD_n inputted at the current frame F_n is larger than the data voltage VD_{n-1} of the previous frame F_{n-1} .

What *Ham* describes is actually merely overdrive and not overdrive compensation. That is, if the voltage would have gone up it is driven up further, but no further compensation is provided for having overdriven the voltage. ¶ [0014] cited in the Office Action merely describes the reverse situation where the voltage is driven further down if it would have gone down.

In contrast, in the present invention, referring to FIG. 4A as a non-limiting example, V_1 and V_2 would be the first and second pixel data, and one can see that the voltage is first overdriven to the overdrive voltage V_3 during overdrive output frames f_4 and f_5 , and then underdriven to the overdrive compensation voltage V_4 during overdrive compensation output frames f_6 and f_7 . The output

frames each begin where marked on the horizontal axis and end where the next frame begins.

The improved display response that results from overdrive compensation according to FIG. 4A is shown in FIG. 4B. Applying overdrive compensation has the advantage that the voltage can be overdriven more than is possible when overdrive is used by itself without subsequent compensation, with correspondingly greater reduction in response time.

As *Ham* fails to teach or suggest "an overdrive compensation output frame, which is output from the frame processing apparatus after the overdrive output frame" as claimed in claims 1 and 15, and there is no allegation of any such feature being taught or suggested by *Nishihara*, then claims 1 and 15 are allowable over *Nishihara* and *Ham*, whether taken separately or in combination, as are claims 2, 4, 6, 7, 9-14, 16, 17, 19, 21, 22 and 24-29 that depend therefrom.

Claims 30-34 were rejected under 35 U.S.C. 103(a) as being obvious over *Nishihara* in view of Applicant's FIG. 2A and 2B, and ¶¶ [0005] – [0009] of the specification. This rejection is respectfully traversed.

Claim 30 has been amended in a similar way to claims 1 and 15, and recites "wherein the output frames have among them an overdrive compensation output frame which is output from the frame processing device after the overdrive output frame, and includes a pixel data that is smaller than the second pixel data when a second pixel datum of the second input frame is greater than a

corresponding first pixel datum, and a pixel data that is larger than the second pixel data when the second pixel datum is smaller than the first pixel datum".

Claims 31-34 depend therefrom.

The Office Action admits that *Nishihara* fails to disclose "an overdrive compensation output frame", and alleges that this is shown in Applicant's prior art FIG. 2A and 2B and in the "Description of the Related Art" (please note that ¶ [0009] is part of the Summary and hence cannot be part of any admission of prior art). However, the "Description of the Related Art" and FIG. 2A and 2B describe and show only overdrive and not overdrive compensation, the difference between which is explained in relation to the rejection over *Nishihara* and *Ham*, *supra*.

Consequently, claims 31-34 are also allowable over the *Nishihara* and Applicant's FIG. 2A and 2B and "Description of the Related Art", whether taken separately or in combination.

It is submitted that this application is in condition for allowance. Such action and the passing of this case to issue are requested.

Should the Examiner feel that a conference would help to expedite the prosecution of this application, the Examiner is hereby invited to contact the undersigned counsel to arrange for such an interview.

AMENDMENT

10/630,906

Should any fee be required, however, the Commissioner is hereby authorized to charge the fee to our Deposit Account No. 18-0002, and advise us accordingly.

Respectfully submitted,



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Date

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